

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)

LIGHTSQUARED SUBSIDIARY, LLC)

Application for Modification of Its Authority)
for an Ancillary Terrestrial Component)

IB Docket No. 11-109
SAT-MOD 20101118-00239

To: The Commission

COMMENTS ON LIGHTSQUARED RECOMMENDATION

Aerospace and Flight Test Radio Coordinating Council (“AFTRCC”), by its counsel, hereby submits Comments on the June 30, 2011 final report by LightSquared Subsidiary LLC (“LightSquared”).¹ In particular, AFTRCC comments on LightSquared’s recommendation that it use ten megahertz near the bottom of the 1525-1559 MHz band in lieu of ten megahertz at the top end of its band as an effort to alleviate interference to GPS device and applications.

BACKGROUND

AFTRCC is an association of the nation’s principal aerospace manufacturers (see Attachment). AFTRCC was founded in 1954 to serve as an advocate for the aerospace industry on matters affecting spectrum policy. AFTRCC is also the recognized non-Federal Government coordinator for the shared, Government/Non-Government spectrum allocated for flight testing. AFTRCC works closely with Government Area Frequency Coordinators, who are responsible for Federal Government use of the spectrum, in an effort to ensure that interference-free flight test operations are protected, and flight safety maximized.

¹ The Comments are submitted pursuant to Public Notice, DA 11-1133, dated June 30, 2011.

DISCUSSION

LightSquared's spectrum is immediately adjacent to the flight test telemetry band, 1435-1525 MHz. Thus, AFTRCC's concern focuses on out-of-band emissions ("OOBE") from LightSquared's ancillary terrestrial component ("ATC") stations into the aeronautical mobile telemetry ("AMT") receiving antennas.

By *Order and Authorization*, DA 11-133 (released January 26, 2011), the Commission conditionally waived the requirement that LightSquared provide terrestrial service on a basis integrated with the satellite component, the net effect being that retail subscribers to LightSquared's wholesale customers could be provided ATC-based service only. The condition required LightSquared to develop and carry out a program with interested parties to test the risk of interference to GPS.

LightSquared's Recommendation focuses entirely on the implications of its proposal for GPS, maintaining that use of the lower ten megahertz (1526-1536 MHz) vs. the upper ten, should resolve nearly all GPS interference issues. For example, it states that operation "only on the lower 10 MHz portion of its spectrum, poses no risk to the vast majority of GPS users"² See also Recommendation, page 27 et seq. The Recommendation does not address potential impacts on other operations such as AMT.

To be sure, the Recommendation's purpose was to respond to the Commission-mandated testing relative to GPS, and the risk thereto. AFTRCC also appreciates that LightSquared has proposed a solution which it believes will minimize that risk to GPS devices and applications. However, that still leaves open a determination of interference potential from ATCs to AMT antennas.

² *Id.* at 24.

Rule 25.523(f)(2), adopted at AFTRCC's urging in 2002, requires ATC operators to "[t]ake all practicable steps to avoid locating ATC base stations within line of sight of Mobile Aeronautical Telemetry (MAT) receive sites in order to protect U.S. MAT systems consistent with ITU-R Recommendation M.1459." Further, the Rule requires prior coordination of ATCs within line-of-sight AMT receivers. These requirements offer some measure of protection.

However, concentration of the entirety of LightSquared's base stations virtually adjacent to the AMT band raises issues of, for example, aggregate interference effects which should also be considered. In AFTRCC's view it would be premature for the Commission to take action on LightSquared's Recommendation until such questions have been explored further. *See Order and Authorization, supra*, at para. 44 ("remind[ing] all parties" of the need to develop effective solutions to any interference concerns that may arise . . . "); letter from Lawrence E. Strickling, Assistant Secretary for Information and Communications, dated July 6, 2011, forwarding the NPEF Report, page 9-2 (noting the "extensive terrestrial deployment now reflected in LightSquared's current plan" and the need to "consider the potential impacts to AMT operation . . . "). Consistent with these statements, AFTRCC anticipates a dialogue with LightSquared concerning this matter. AFTRCC also urges the Commission to monitor this issue closely and condition LightSquared's proposed segregation of its terrestrial base stations in the lower 10 MHz of the L-band, if the Commission is otherwise inclined to allow that proposal, on completing coordination with AFTRCC and on compliance with any other interference mitigation mechanisms that may be necessary to protect highly sensitive flight test receivers.

CONCLUSION

Accordingly, AFTRCC urges that the Commission's consideration of LightSquared's proposal specifically include examination of effects on AMT operations from concentration of ATCs in spectrum near-adjacent to AMT.

Respectfully submitted,

AEROSPACE AND FLIGHT TEST RADIO
COORDINATING COUNCIL

By: 

William K. Keane
Duane Morris LLP
505 9th Street NW
Suite 1000
Washington, D.C. 20004
(202) 776-5243

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Aerospace and Flight Test Radio Coordinating Council Members

